

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

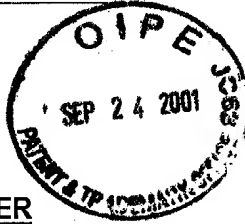
PATENT APPLICATION

Inventor(s): F. Abel Ponce de Leon et al.
 Appln. No.: 09 341,105
 Series Code ↑ Serial No. ↑

Group Art Unit 1655
 Examiner: B. Sisson
 Atty. Dkt. P 0275805
 M# Client Ref

Filed: September 7, 1999
 Hon. Commissioner of Patents
 Washington, D.C. 20231

Appln. Title: Z-Chromosomal Markers Derived from
 Chicken (Gallus domesticus) and Use
 Thereof in Chromosomal Mapping



Sir:

REPLY/AMENDMENT/LETTER

Date: September 24, 2001

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated hereinto by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

FEE REQUIREMENTS FOR CLAIMS AS AMENDED

1. Small Entity claim

- A. ☐ NOT made
 B. ☐ Withdrawn
 C. ☐ made herewith
 D. ☒ made previously

For B & C
 See **Required**
Separate Paper
 (Pat-256)

Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code Lg/Sm
2. Total Effective Claims	9	**minus 20	0	x \$18/\$9 = + \$0	103/203
3. Independent Claims	1	***minus 3	0	x \$80/\$40 = + \$0	102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application)..... add				+ \$270/\$135 = + \$0	104/204
5. Original due Date: July 24, 2001	<input type="checkbox"/> NONE				
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached	(1 mo) (2 mos) (3 mos) (Usable only for ≤ 2mo.OA --- 4 mos) (Usable only for 30 day/1mo.OA --- 5 mos)	\$110/\$55 = \$390/\$195 = \$890/\$445 = \$1390/\$695= \$1890/\$945=	+ \$195		115/215 116/216 117/217 118/218 128/228
7. Enter any previous extension fee paid since above original due date and subtract		- \$0			
8.			Extension Fee Attached	+ \$195	
9. If Terminal Disclaimer attached, add Rule 20(d) official fee		+ \$110/\$55		+ \$0	148/248
10. If IDS attached requires Official Fee under Rule 97 (c), add		+ \$180		+ \$0	126
or if Rule 97(d) Request add		+ \$180			126
11. After-Final Request Fee per rules 129(a) and 17(r)		+ \$710/355		+ \$0	146/246
12. No. of additional inventions for examination per Rule 129(b).....		x \$710/355 ea		+ \$0	149/249
13. Request for Continued Examination (RCE)		+ \$710/355		+ \$0	1179/1279
14. Petition fee for				+ \$0	

15.

TOTAL FEE ENCLOSED = \$195 RECEIVED

16. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".

17. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.

18. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.

Our Deposit Account No. 03-3975)

(Our Order No. 015837 0275805

C#

M#

SEP 27 2001

TECH CENTER 1600/29

CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

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 Intellectual Property Group

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NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments

SEP 27 2001

TECH CENTER 1600/2900

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION OF

F. Abel Ponce de Leon et al.

Application Serial No. 09/341,105

Filed: September 7, 1999

Title: Z-CHROMOSOMAL MARKERS DERIVED FROM CHICKEN (*GALLUS DOMESTICUS*) AND USE THEREOF IN CHROMOSOMAL MAPPING



Group Art Unit: 1655

Examiner: B. Sisson

15/B
B. Webb
9/27/01
(NE)

* * * * *

REPLY AND AMENDMENT

Hon. Commissioner of Patents
Washington, D.C. 20231

Sir:

This Reply is responsive to the Office Action dated April 24, 2001. Kindly enter the following amendment and remarks prior to further examination.

IN THE SPECIFICATION:

Page 9, delete the whole paragraph starting in line 2 and replace it with the following new paragraph:

Genetic and physical mapping of human and animal genomes has been greatly facilitated by the use of chromosome specific DNA libraries. Mapping with libraries specific to a chromosome or chromosomal region increases marker saturation by reducing the gaps resulting from a purely random shotgun approach. This study was undertaken to construct a genetic and physical map of microsatellites on the chicken Z chromosome. This chromosome is the fifth largest in the chicken genome, comprising about 8% of the total. Notwithstanding its size, very few microsatellites have been assigned to it. DNA originating from the chicken Z chromosome was previously isolated and reported. This was used to construct a small insert library in Lambda ZAP Express, representing 14 chromosome equivalents. This library was screened for microsatellites with an (AC) 12 oligo, and positive clones were isolated. Confirmation of the presence of the microsatellite, as well as its approximate location along the cloned fragment was accomplished by PCR amplification. Clones with adequate flanking regions were sequenced, and primers for 19 microsatellites were constructed. These primers were used to genotype individuals from the East Lansing Poultry Reference Population and a